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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,326	10/22/2003	Dean Foote	THAS121883	8551
26389 7590 09/28/2007 CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347			EXAMINER PATEL, VISHAL A	
			ART UNIT 3673	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/692,326
Filing Date: October 22, 2003
Appellant(s): FOOTE ET AL.

Dean FOOTE, et. al.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/6/07 appealing from the Office action mailed 3/7/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,877,217	Peil et al	10-1989
1,709,949	Rasmussen et al	4-1929

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Peil et al (US. 4,877,217).

Peil discloses a seal assembly for a reciprocating shaft (intended use) comprising a body having a bore (bore 22), a shaft (shaft 26) that moves reciprocally within the body between an extended position from the body and a retracted position within the body (shaft 26 reciprocates), at least one first circumferential seal (seal 30 seals the shaft) positioned in the body and circumscribing the shaft, the first circumferential seal performing a dedicated seal function of preventing fluids from migrating along the shaft from a first region of the body, the shaft having a first seal travel area (seal area that is contacted by first seal 30) which is in contact with the first seal during axial reciprocating movement of the shaft (portion that contacts as seen in figures 2-3), *at least a portion of the first seal travel area extending from the body where it is exposed to contaminants when the shaft is in the extended position (intended use)*, at least one second circumferential seal (seal 32) positioned in the body and circumscribing the shaft in axially spaced relation to the first circumferential seal (seal 30), the second circumferential seal being dedicated to performing the same sealing function as the first circumferential seal (the seal 32 is capable of sealing the shaft in an event the first seal fails) and serving as a redundant back up seal until the first circumferential seal experiences seal failure (intended use when the first seal fails, but the seal 32 is a redundant seal for preventing fluid from entering the second region), the second circumferential seal being positioned to prevent fluid from migrating along the shaft from

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the first region of the body and to maintain the seal at the first end of the shaft in the event of a failure of the first circumferential seal (intended use when the first seal fails and a resultant would occur, the second seal 32 is a redundant seal for the first seal 30), the shaft having a second seal travel area (area of the shaft 26 that only contacts seal 32) which is in contact with the second seal during axial reciprocating movement of the shaft the second seal area remaining sheltered within the body even when the shaft is in the extended position (the second seal area is sheltered in the body, see figures 1-3), the first seal travel area and the second seal travel area being axially spaced separate and distinct areas on the shaft (the first seal travel area is distinct from the second seal travel area), such that damage to the exposed portion of the first seal travel area leading to a failure of the at least one first circumferential seal does not lead to failure of the at least one second circumferential seal, as the second circumferential seal engages the second seal travel area which is separate and distinct from the first seal travel area (as seen in figures 2-3, an outer surface of the shaft 26 between seals 30 and 32 is smaller than the outer surface of the shaft 26 between the second seal 32 and end of 36, see attached figure).

The shaft is ram shaft of a blow out preventer.

The seal including a seal cluster having a primary seal and a seal carrier (carrier as shown in attached figure 2 and primary seal 30 and 32).

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Rasmussen (US. 1,709,949).

Rasmussen teaches a seal assembly having a body having a bore (body having shaft 260), a shaft (260) that is a ram shaft of a blow out preventer, a first circumferential seal (seal 85) positioned in the body that contacts a first seal area of the shaft (where the first circumferential

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seal contacts the shaft 260), a second circumferential seal (either 118 or 55) positioned in the body that contacts a second seal area (where the second circumferential seal contacts the shaft 261) of the shaft that is sheltered in the body and distinct from the first seal area and the second circumferential seal is a redundant seal. The configuration of the second circumferential seal relative to the first circumferential seal prevents a total seal loss of the first circumferential seal and prevents well fluids from flowing past the first circumferential seal in the event of a blow out of the first circumferential seal (this is the case since if the seal 85 fails the seal 55 prevents any fluid from the bottom to flow past the first circumferential seal and the seal 118 prevents any fluid from the top to flow past the first circumferential seal).

Claim Rejections - 35 USC § 103

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peil in view of Thompson (US. 3,987,846).

Peil discloses the invention substantially as claimed above but fails to disclose that the seal cluster having a wiper seal and an O-ring seal. Thompson discloses that a groove in a housing (26) having at least three seals (seals in 27 and 28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the seal cluster of Peil to have plurality of seals as taught by Thompson, to provide an effective seal around a polished rod (column 2, line 65 to column 3, line 4 of Thompson).

(10) Response to Argument

Appellants' arguments filed 8/6/07 have been fully considered but they are not persuasive.

Response to arguments against Peil:

Appellants' argument that Peil does not teach the seal assembly of claim 1 is not persuasive because the rejection above and the attached figure 1 shows that Peil discloses a seal assembly having a body (housing) having a bore (bore in housing that receives shaft 26), a shaft having a first end and a second end (see attached figure), at least one circumferential seal (one seal) contacting a first area (first area indicated in attached figure), at least one second circumferential seal (second seal) contacting a second area (second area indicated in attached figure) which is distinct from the first area, the one and second seals sealing the shaft and body from fluid in area 89 and 45, the first area is also capable of receiving well fluid through port 18 and into cavity 45 where the first area is located (figure 2, extended position), the shaft is also capable of extending (as shown in figures 1 and 2, figure 1 not extended and figure 2 extended position), the seals are redundant seals since the seals have the same function of sealing and the second area is always sheltered in the body as seen in figures 1 and 2.

In response to applicant's argument that "the shaft is adapted to move reciprocally within the body between an extended position and a retracted position within the body", "the first area is exposed to contaminants when the shaft is in the extended position", "the second circumferential seal being dedicated to performing the same sealing function as the first circumferential seal and serving as a redundant back up seal until the first circumferential seal experiences seal failure", "to maintain the seal at the first end of the shaft in an event of failure of the first circumferential seal" and "such the damage to the exposed portion of the first seal travel area leading to a failure of the at least one first circumferential seal does not lead to failure of the at least one second circumferential seal, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

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patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore the reference of Peil discloses that the shaft is capable of moving reciprocally (figures 1 and 2 show how the shaft is moving reciprocally), the first area is capable of being exposed to contaminants (when the shaft is extended position in figure 2, the shaft is exposed to contaminants in chamber 45 where the first area is located, column 2, lines 64-65), the second seal is capable of being a redundant seal (the second seal prevents fluid or contaminants from chamber 45 to travel along the shaft to chamber 89 just as the first seal and column 2, lines 40-42) and such the damage to the exposed portion of the first seal travel area leading to a failure of the at least one first circumferential seal does not lead to failure of the at least one second circumferential seal (this is the case since the second seal only contacts the second area, as shown in figures 1 and 2).

Response to arguments against Rasmussen:

Appellants' argument that Rasmussen does not teach the seal assembly of claim 1 is not persuasive because the rejection above and the attached figure 1 shows that Rasmussen discloses a seal assembly having a body (body receiving shaft 260) having a bore (bore that receives the shaft 260), a shaft (260 and 261) having a first end (end near numeral first fluid area, see attached figure 1) and a second end (near second fluid area, see attached figure 1), at least one circumferential seal (85) contacting a first area (first area indicated in attached figure 1), at least one second circumferential seal (118) contacting a second area (second area indicated in attached figure 1) which is distinct from the first area, the one and second seals sealing the shaft and body from first and second fluid area (first and second fluid area indicated in figure 1), the first area is also capable of being exposed to containments (the first shaft is exposed to containments when

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the shaft is extended as shown in phantom line in figure 1), the shaft is also capable of extending (as shown in figure 1), the seals are redundant seals since the seals have the same function of sealing and the second area is always sheltered in the body as seen in figure 1.

In response to applicant's argument that "the shaft is adapted to move reciprocally within the body between an extended position and a retracted position within the body", "the first area is exposed to contaminants when the shaft is in the extended position", "the second circumferential seal being dedicated to performing the same sealing function as the first circumferential seal and serving as a redundant back up seal until the first circumferential seal experiences seal failure", "to maintain the seal at the first end of the shaft in an event of failure of the first circumferential seal" and "such the damage to the exposed portion of the first seal travel area leading to a failure of the at least one first circumferential seal does not lead to failure of the at least one second circumferential seal, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore the reference of Rasmussen discloses that the shaft is capable of moving reciprocally (figure 1 shows how the shaft is moving reciprocally), the first area is capable of being exposed to contaminants (when the shaft is extended as shown in phantom lines in attached figure 1, the shaft is exposed to contaminants in the first fluid area), the second seal is capable of being a redundant seal (the second seal prevents fluid or contaminants from the first to the second fluid areas) and such the damage to the exposed portion of the first seal travel area leading to a failure of the at least one

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first circumferential seal does not lead to failure of the at least one second circumferential seal (this is the case since the second seal only contacts the second area, as shown in figures 1).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

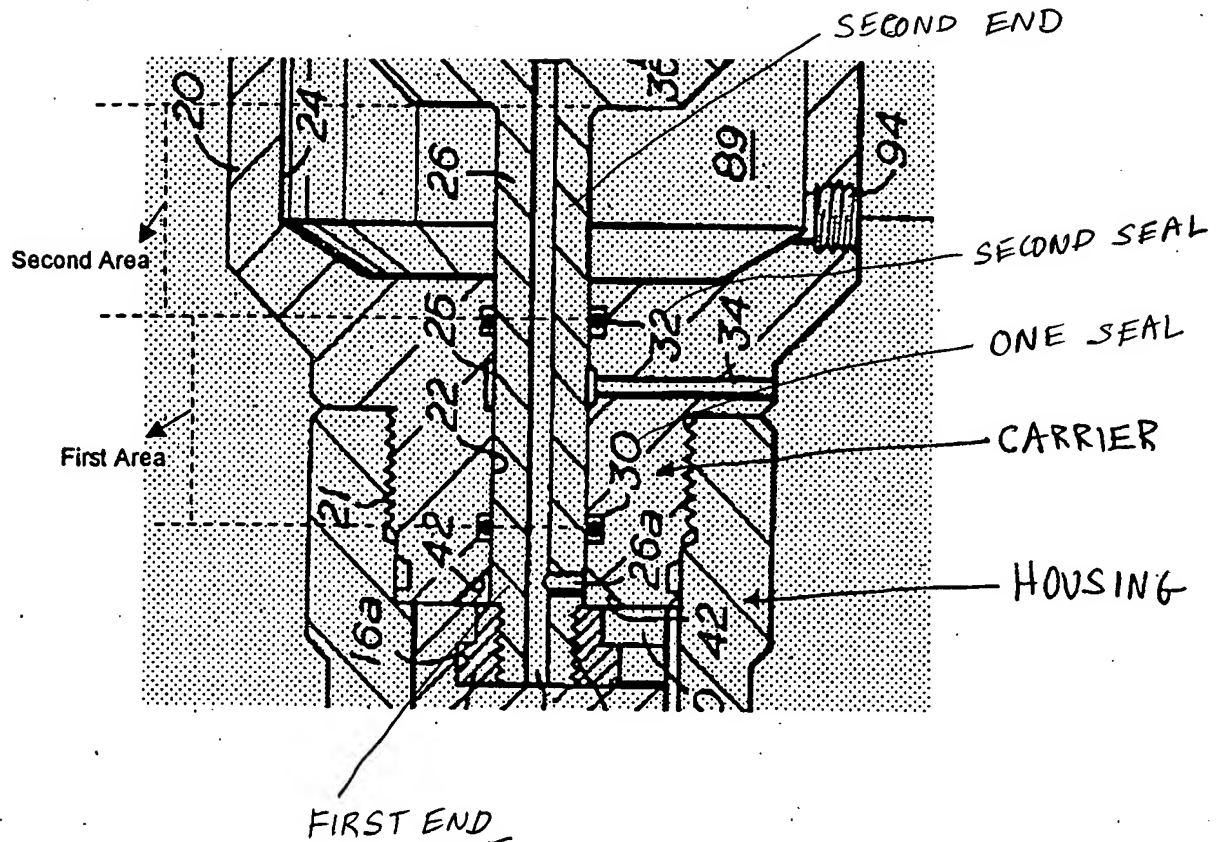


FIG. 2

US: 4,877,217

April 23, 1929.

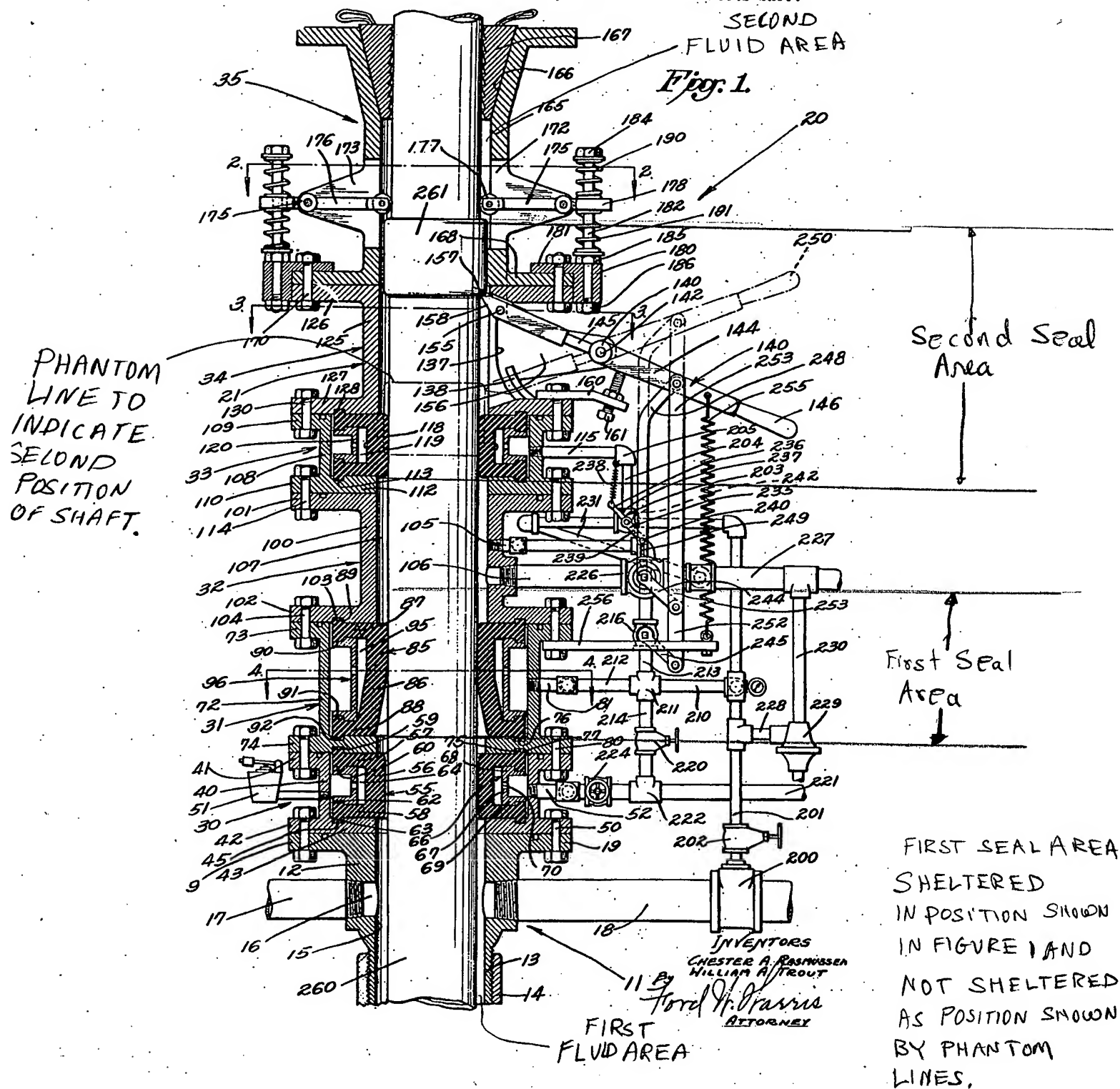
C. A. RASMUSSEN ET AL

1,709,949

AUTOMATIC SEAL CONTROL BLOW-OUT PREVENTER

Filed Oct. 11, 1927

5 Sheets-Sheet 1



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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

VP

Conferees:

Vishal Patel, VP

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